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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

STARKS, WILBERT L

ART UNIT	PAPER NUMBER
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2121

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/430,767

Applicant(s)

HECKERMAN ET AL.

Examiner

Wilbert L. Starks, Jr.

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 October 1999.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-76 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-76 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 U.S.C. §101

1. 35 U.S.C. §101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

the invention as disclosed in claims 1-76 is directed to non-statutory subject matter.

2. Regardless of whether any of the claims are in the technological arts, none of them is limited to practical applications in the technological arts. Examiner finds that *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) controls the 35 U.S.C. §101 issues on that point for reasons made clear by the Federal Circuit in *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447 (Fed. Cir. 1999). Specifically, the Federal Circuit held that the act of:

...[T]aking several abstract ideas and manipulating them together adds nothing to the basic equation. *AT&T v. Excel* at 1453 quoting *In re Warmerdam*, 33 F.3d 1354, 1360 (Fed. Cir. 1994).

Examiner finds that Applicant's "items" references are just such abstract ideas.

3. Examiner bases his position upon guidance provided by the Federal Circuit in *In re Warmerdam*, as interpreted by *AT&T v. Excel*. This set of precedents is within the same line of cases as the *Alappat-State Street Bank* decisions and is in complete

Art Unit: 2121

agreement with those decisions. *Warmerdam* is consistent with *State Street*'s holding that:

Today we hold that *the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price*, constitutes a practical application of a mathematical algorithm, formula, or calculation because it produces 'a useful, concrete and tangible result' -- *a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades.* (emphasis added) *State Street Bank* at 1601.

4. True enough, that case later eliminated the "business method exception" in order to show that business methods were not per se nonstatutory, but the court clearly *did not* go so far as to make business methods *per se* statutory. A plain reading of the excerpt above shows that the Court was *very specific* in its definition of the new *practical application*. It would have been much easier for the court to say that "business methods were per se statutory" than it was to define the practical application in the case as "...the transformation of data, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price..."

5. The court was being very specific.

6. Additionally, the court was also careful to specify that the "useful, concrete and tangible result" it found was "a final share price momentarily fixed for recording purposes and even accepted and relied upon by regulatory authorities and in subsequent trades." (i.e. the trading activity is the further practical use of the real world

Art Unit: 2121

monetary data beyond the transformation in the computer – i.e., “post-processing activity”).)

7. Applicant cites no such specific results to define a useful, concrete and tangible result. Neither does Applicant specify the associated practical application with the kind of specificity the Federal Circuit used.

8. Furthermore, in the case *In re Warmerdam*, the Federal Circuit held that:

...[T]he dispositive issue for assessing compliance with Section 101 in this case is whether the claim is for a process that goes beyond simply manipulating ‘abstract ideas’ or ‘natural phenomena’ ... As the Supreme Court has made clear, ‘[a]n idea of itself is not patentable, ... taking several abstract ideas and manipulating them together adds nothing to the basic equation’. *In re Warmerdam* 31 USPQ2d at 1759 (emphasis added).

9. Since the Federal Circuit held in *Warmerdam* that this is the “dispositive issue” when it judged the usefulness, concreteness, and tangibility of the claim limitations in that case, Examiner in the present case views this holding as the dispositive issue for determining whether a claim is “useful, concrete, and tangible” in similar cases. Accordingly, the Examiner finds that Applicant manipulated a set of abstract “items” to solve purely algorithmic problems in the abstract (i.e., what *kind* of “items” are used in the natural language format? Algebraic word problems? Boolean logic problems? Fuzzy logic algorithms? Probabilistic word problems? Philosophical ideas? Even vague expressions, about which even reasonable persons could differ as to their meaning? Combinations thereof?) Clearly, a claim for manipulation of “items” is provably even more abstract (and thereby less limited in practical application) than pure “mathematical algorithms” which the Supreme Court has held are per se nonstatutory – in fact, it *includes* the expression of nonstatutory mathematical algorithms.

10. Since the claims are not limited to exclude such abstractions, the broadest reasonable interpretation of the claim limitations includes such abstractions. Therefore, the claims are impermissibly abstract under 35 U.S.C. §101 doctrine.

Art Unit: 2121

11. Since *Warmerdam* is within the *Alappat-State Street Bank* line of cases, it takes the same view of “useful, concrete, and tangible” the Federal Circuit applied in *State Street Bank*. Therefore, under *State Street Bank*, this could not be a “useful, concrete and tangible result”. There is only manipulation of abstract ideas.

12. The Federal Circuit validated the use of *Warmerdam* in its more recent *AT&T Corp. v. Excel Communications, Inc.* decision. The Court reminded us that:

Finally, the decision in *In re Warmerdam*, 33 F.3d 1354, 31 USPQ2d 1754 (Fed. Cir. 1994) is **not to the contrary**. *** The court found that the claimed process did nothing more than manipulate basic mathematical constructs and concluded that ‘taking several abstract ideas and manipulating them together adds nothing to the basic equation’; hence, the court held that the claims were properly rejected under §101 ... Whether one agrees with the court’s conclusion on the facts, the holding of the case is a straightforward application of the basic principle that mere laws of nature, natural phenomena, and abstract ideas are not within the categories of inventions or discoveries that may be patented under §101. (emphasis added) *AT&T Corp. v. Excel Communications, Inc.*, 50 USPQ2d 1447, 1453 (Fed. Cir. 1999).

13. Remember that in *In re Warmerdam*, the Court said that this was the dispositive issue to be considered. In the *AT&T* decision cited above, the Court reaffirms that this is the issue for assessing the “useful, concrete, and tangible” nature of a set of claims under §101 doctrine. Accordingly, Examiner views the *Warmerdam* holding as the dispositive issue in this analogous case.

14. The fact that the invention is merely the manipulation of *abstract ideas* is clear. The data referred to by Applicant’s word “items” is simply an abstract construct that does not limit the claims to the transformation of real world data (such as monetary data or heart rhythm data) by some disclosed process. Consequently, the necessary conclusion under *AT&T*, *State Street* and *Warmerdam*, is straightforward and clear.

Art Unit: 2121

The claims take several abstract ideas (i.e., "items" in the abstract) and manipulate them together adding nothing to the basic equation. Claims 1-76 are, thereby, rejected under 35 U.S.C. §101.

Claim Rejections - 35 U.S.C. §112

The following is a quotation of the first paragraph of 35 U.S.C. §112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-76 are rejected under 35 U.S.C. §112, first paragraph because current case law (and accordingly, the MPEP) require such a rejection if a §101 rejection is given because when Applicant has not in fact disclosed the practical application for the invention, as a matter of law there is no way Applicant could have disclosed *how* to practice the *undisclosed* practical application. This is how the MPEP puts it:

("The how to use prong of section 112 **incorporates as a matter of law** the requirement of 35 U.S.C. §101 that the specification disclose as a matter of fact a practical utility for the invention.... If the application fails as a matter of fact to satisfy 35 U.S.C. §101, then the application also fails as a matter of law to enable one of ordinary skill in the art to use the invention under 35 U.S.C. §112."; In re Kirk, 376 F.2d 936, 942, 153 USPQ 48, 53 (CCPA 1967) ("Necessarily, compliance with § 112 requires a description of how to use presently useful inventions, **otherwise an applicant would anomalously be required to teach how to use a useless invention.**") See, MPEP 2107.01(IV), quoting In re Kirk (emphasis added).

Therefore, claims 1-76 are rejected on this basis.

Double Patenting

Art Unit: 2121

15. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR §1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See, 37 CFR §1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR §3.73(b).

16. Claim 1 is rejected under the judicially created doctrine of double patenting over claim 1 of Heckerman et al. (U. S. Patent No. 6,665,653 B1; dated 16 December 2003; class 706; subclass 047) since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter. Claim 1 of the present application reads as follows:

1. A computer-implemented method comprising:
 - allocating each of a plurality of items to at least one of a plurality of clusters, based on a predetermined criterion accounting for at least a quota for each item;
 - selecting an item for a current cluster from items allocated to the current cluster; and,
 - effecting the item.

Heckerman et al., the previous application at issue, reads as follows:

1. A computer-implemented method comprising:
 - allocating each of a plurality of items to at least one of a plurality of clusters, based on a predetermined criterion accounting for at least a quota for each item and comprising at least maximizing an expression ... where ... comprises a probability that a user in cluster j will actuate item i , $\text{BucketProb}(p_{ij})$ comprises a function that returns a probability associated with a group to which p_{ij} is assigned in a discretization, and x_{ij} comprises a total number of times item i is effected in cluster j ;
 - selecting an item for a current cluster from items allocated to the current cluster; and,
 - effecting the item.

Both claims are for methods that comprise three common steps:

- 1) Allocating items to clusters using an optimization technique;
- 2) Selecting an item for a current cluster; and
- 3) "Effecting" the item.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application that matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

Art Unit: 2121

The same things can also be said for Applicant's claims 53 and 59, which contain the same steps.

Claim Rejections - 35 U.S.C. §102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

17. Claims 1, 36, 50, and 53 are rejected under 35 U.S.C. §102(e) as being anticipated by Ballard (U.S. Patent Number 6,182,050 B1; dated 30 January 2001; class 705; subclass 014). Specifically:

Claim 1

Claim 1's:

1. A computer-implemented method comprising:
allocating each of a plurality of items to at least one of a plurality of clusters, based on a predetermined criterion accounting for at least a quota for each item;

is anticipated by Ballard, col. 2, lines 10-15, where it recites:

According to one aspect of the invention, associated with each advertisement is target criteria information (e.g., desired demographic information, a desired affinity ranking, or a target criteria filter). Such information is determined by the advertiser.

Claim 1's:

Art Unit: 2121

selecting an item for a current cluster from items allocated to the current cluster; and,

is anticipated by Ballard, col. 2, lines 15-19, where it recites:

In addition, there is playback criteria associated with each advertisement. Playback criteria determines the range of dates or times during which the advertisement may be shown, and any limitation on the number of times the advertisement may be shown.

Claim 1's:

effecting the item.

is anticipated by Ballard, col. 2, lines 15-19, where it recites:

In addition, there is playback criteria associated with each advertisement. Playback criteria determines the range of dates or times during which the advertisement may be shown, and any limitation on the number of times the advertisement may be shown.

Claim 36

Claim 36's:

36. A computer-implemented method comprising:
defining a plurality of clusters, each cluster corresponding to a group of users who are most receptive to a given type of ad; and,

is anticipated by Ballard, col. 2, lines 10-15, where it recites:

According to one aspect of the invention, associated with each advertisement is target criteria information (e.g., desired demographic

Art Unit: 2121

information, a desired affinity ranking, or a target criteria filter). Such information is determined by the advertiser.

Claim 36's:

allocating an ad having a particular type to at least one cluster based on the particular type of the ad and based on a predetermined criterion.

is anticipated by Ballard, col. 2, lines 10-15, where it recites:

According to one aspect of the invention, associated with each advertisement is target criteria information (e.g., desired demographic information, a desired affinity ranking, or a target criteria filter). Such information is determined by the advertiser.

Claim 50

Claim 50's:

50. A computerized system comprising:
 a database storing a plurality of ads, each ad having a quota;
 an allocator to allocate each of the plurality of ads to at least one of a plurality of clusters, based on a predetermined criterion accounting for at least the quota for each ad and a constraint for each cluster; and,

Is anticipated by Ballard, claim 1, where it recites:

1. A method for distributing advertisements for display on an end user computer, comprising the steps of:

storing advertisement information on a service provider computer for each one of a plurality of advertisements, the advertising information for each respective advertisement including target selection criteria and playback criteria;

storing data pertaining to an end user on an end user computer;

processing the advertisement information for a given advertisement using at least a portion of the end user information to determine whether to display the given advertisement at the end user computer; and

scheduling the display of the given advertisement at the end user computer

Art Unit: 2121

using the playback criteria corresponding to the given advertisement; and

in which the step of storing advertising information comprises storing, for each one of the plurality of advertisements, corresponding target criteria data, in which the target criteria data includes a minimum affinity ranking for the corresponding advertisement, in which the step of storing end user data comprises storing consumer affinity data for prescribed categories of advertisements, in which the at least a portion of the end user data includes an affinity ranking for a select advertising category, and in which the step of processing comprises the step of identifying an advertisement in an advertising category which has a minimum affinity ranking less than the corresponding affinity ranking for the select advertising category.

Claim 50's:

a **communicator** to select an ad for a current cluster from ads allocated to the current cluster and output the ad to a user.

Is anticipated by Ballard, claim 1, where it recites:

1. A method for distributing advertisements for display on an end user computer, comprising the steps of:

storing advertisement information on a service provider computer for each one of a plurality of advertisements, the advertising information for each respective advertisement including target selection criteria and playback criteria;

storing data pertaining to an end user on an end user computer;

processing the advertisement information for a given advertisement using at least a portion of the end user information to determine whether to display the given advertisement at the end user computer; and

scheduling the display of the given advertisement at the end user computer using the playback criteria corresponding to the given advertisement; and

in which the step of storing advertising information comprises storing, for each one of the plurality of advertisements, corresponding target criteria data, in which the target criteria data includes a minimum affinity ranking for the corresponding advertisement, in which the step of storing end user data comprises storing consumer affinity data for prescribed categories of advertisements, in which the at least a portion of the end user data includes an affinity ranking for a select advertising category, and in which the step of processing comprises the step of identifying an advertisement in an

Art Unit: 2121

advertising category which has a minimum affinity ranking less than the corresponding affinity ranking for the select advertising category.

Claim 53

Claim 53's:

53. A machine-readable medium having instructions stored thereon for execution by a processor to perform a method comprising:
allocating each of a plurality of ads to at least one of a plurality of clusters, based on a predetermined criterion accounting for at least a quota for each ad and a constraint for each cluster;

is anticipated by Ballard, col. 2, lines 10-15, where it recites:

According to one aspect of the invention, associated with each advertisement is target criteria information (e.g., desired demographic information, a desired affinity ranking, or a target criteria filter). Such information is determined by the advertiser.

Claim 53's:

selecting an ad for a current cluster from ads allocated to the current cluster; and,

is anticipated by Ballard, col. 2, lines 15-19, where it recites:

In addition, there is playback criteria associated with each advertisement. Playback criteria determines the range of dates or times during which the advertisement may be shown, and any limitation on the number of times the advertisement may be shown.

Claim 53's:

displaying the ad.

Art Unit: 2121

is anticipated by Ballard, col. 2, lines 15-19, where it recites:

In addition, there is playback criteria associated with each advertisement. Playback criteria determines the range of dates or times during which the advertisement may be shown, and any limitation on the number of times the advertisement may be shown.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.
- A. Fisher (U.S. Patent Number 2,295,102; dated 08 September 1942; class 283; subclass 66.1) discloses an advertising schedule device.
- B. Geerlings (U.S. Patent Number 5,956,693 A; dated 21 September 1999; class 705; subclass 014) discloses a computer system for merchant communication to customers.
- C. Jameson (U.S. Patent Number 6,032,123 A; dated 29 February 2000; class 705; subclass 008) discloses a method and apparatus for allocating, costing, and pricing organizational resources.

Art Unit: 2121

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (571) 272-3691.

Alternatively, inquiries may be directed to the following:

S. P. E. Anthony Knight	(571) 272-3687
After-final (FAX)	(703) 746-7238
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WLS

04 February 2005